Appl. No. 10/028,989 Amdt. dated June 7, 2007

Reply to Office Action of December 7, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-68. (canceled)

69. (currently amended): A method of delivering a substance into an intradermal compartment of a human subject's skin, said method comprising administering the substance through at least one small gauge hollow needle having an outlet with an exposed height between 0 and 1 mm, said outlet being inserted into the skin to a depth of between 0.3 mm and 2 mm, such that delivery of the substance occurs at a depth between 0.3 mm and 2 mm, wherein a dosage of the substance for achieving a systemic bioavailability of the substance is reduced by at least 10% compared to the dose required to achieve the systemic bioavailability when the substance is delivered to a subcutaneous compartment of the human subject's skin.

- 70. (previously presented): The method of claim 69, wherein the systemic bioavailability results in a therapeutic or diagnostic effect.
- 71. (previously presented): The method of claim 69 wherein the administering comprises inserting the needle so that the substance is deposited at a depth of at least about 0.3 mm below the surface of the human subject's skin to no more than about 2 mm below the surface of the human subject's skin.
- 72. (previously presented): The method of claim 69 wherein the administering comprises inserting the needle into the skin so that the substance is deposited at a depth of at least about 0.3 mm and no more than about 2 mm.
- 73. (previously presented): The method of claim 69 wherein the substance is administered over a time period of not more than ten minutes.

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74. (currently amended): The method of claim 69 wherein the substance is administered

at a rate between 1 nL/min nL/min. and 200 mL/ min.

75. (previously presented): The method of claim 69 wherein the needle(s) are inserted

substantially perpendicularly to the skin.

76. (canceled)

77. (previously presented): The method of claim 69 wherein the dosage is reduced by at

least 20%.

78. (previously presented): The method of claim 69 wherein the dosage is reduced by at

least 30%.

79. (previously presented): The method of claim 69 wherein the substance is a peptide,

protein or nucleic acid.

80. (previously presented): The method of claim 69 wherein the substance is a diagnostic

or therapeutic substance.

81. (previously presented): The method of claim 69 wherein the substance is

hydrophobic.

82. (previously presented): The method of claim 69 wherein the substance is hydrophilic.

83. (previously presented): The method of claim 69 wherein the substance is a hormone.

84. (previously presented): The method of claim 69 wherein the substance is selected

from the group consisting of insulin, granulocyte stimulating factor and PTH.

85. (currently amended): A method of delivering a substance into an intradermal

compartment of a human subject's skin, said method comprising injecting or infusing the

substance intradermally through one or more microneedles having a length sufficient to

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penetrate the intradermal compartment and an outlet at a depth within the intradermal compartment wherein a dosage of the substance for achieving a systemic bioavailability of the substance is reduced by at least 10% compared to the dose required to achieve the systemic bioavailability when the substance is delivered to a subcutaneous compartment of the human subject's skin.

- 86. (previously presented): The method of claim 85 wherein the length of the microneedle(s) is from about 0.5 mm to about 1.7 mm.
- 87. (previously presented): The method of claim 85 wherein the microneedle is a 30 to 34 gauge needle.
- 88. (currently amended): The method of claim 85 wherein the microneedle has an outlet with an exposed height between depth of from 0 and to 1 mm.
- 89. (previously presented): The method of claim 85 wherein the microneedle is configured in a delivery device which positions the microneedle perpendicular to skin surface.
- 90. (previously presented): The method of claim 85 wherein the microneedle is contained in an array of microneedles.
- 91. (previously presented): The method of claim 90 wherein the array comprises 3 microneedles.
- 92. (previously presented): The method of claim 90 wherein the array comprises 6 microneedles.
- 93. (previously presented): The method of claim 85 wherein the substance is administered over a time period of not more than ten minutes.
- 94. (currently amended): The method of claim 85 wherein the substance is administered at a rate between 1 <u>nL/min</u> nL/min. and 200 mL/min.

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- 95. (previously presented): The method of claim 85 wherein the microneedle(s) are inserted substantially perpendicularly to the skin.
- 96. (canceled)
- 97. (previously presented): The method of claim 85 wherein the dosage is reduced by at least 20%.
- 98. (previously presented): The method of claim 85 wherein the dosage is reduced by at least 30%.
- 99. (previously presented): The method of claim 85 wherein the substance is a peptide, protein, or nucleic acid.
- 100. (previously presented): The method of claim 85 wherein the substance is a hormone.
- 101. (previously presented): The method of claim 85 wherein the substance is hydrophobic.
- 102. (previously presented): The method of claim 85 wherein the substance is hydrophilic.
- 103. (previously presented): The method of claim 85 wherein the substance is selected from the group consisting of insulin, granulocyte stimulating factor and PTH.
- 104. (previously presented): The method of claim 69 or 85 wherein the substance is used for the treatment of a symptom of a pathological condition.
- 105. (new): The method of claim 85, wherein delivery of the substance occurs at a depth between 0.3 to 2.0 mm

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106. (new): The method of claim 69, wherein the systemic bioavailability is measured by a determination of t_{lag} , T_{max} , C_{max} or AUC.

107. (new): The method of claim 85, wherein the systemic bioavailability is measured by a determination of t_{lag} , T_{max} , C_{max} or AUC.